

Subtilisin

Figure 1

| Ala 1 | Gln | Ser | Val | Pro 5 | Tyr | Gly | Val | Ser | Gln 10 | Ile | Ьуs | Ala | Pro | Ala 15 | Leu |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| His | Ser | Gln | Gly 20 | Tyr | Thr | Gly | Ser | Asn 25 | Val | ГЛЗ | Val | Ala | Val 30 | Ile | Asp |
| Ser | Gly | Ile 35 | Asp | Ser | Ser | His | Pro 40 | Aap | Leu | Lys | Val | Ala 45 | Gly | Gly | Ala |
| Ser | Met 50 | Val | Pro | Ser | Glu | Thr 55 | Asn | Pro | Phe | Gln | Asp 60 | Asn | Asn | Ser | His |
| Gly 65 | Thr | His | Val | Ala | Gly 70 | Thr | Val | Ala | Ala | Leu 75 | Asn | Asn | Ser | Ile | Gly 80 |
| Val | Leu | Gly | Val | Ala 85 | Pro | Ser | Ala | Ser | Leu 90 | Tyr | Ala | Val | Lys | Val 95 | Leu |
| Gly | Ala | Asp | Gly 100 | Ser | Gly | Gln | Tyr | Ser 105 | Trp | Ile | Ile | Asn | Gly 110 | Ile | Glu |
| Trp | Ala | Ile 115 | Ala | Asn | Asn | Met | Asp 120 | Val | Ile | Asn | Met | Ser 125 | Leu | Gly | Gly |
| Pro | Ser 130 | Gly | Ser | Ala | Ala | Leu 135 | Lys | Ala | Ala | Val | Asp 140 | Lys | Ala | Va'l | Ala |
| Ser 145 | Gly | Val | Val | Val | Val 150 | Ala | Ala | Ala | Gly | Asn 155 | Glu | Gly | Thr | Ser | Gly 160 |
| Ser | Ser | Ser | Thr | Val 165 | Gly | Tyr | Pro | Gly | Lys 170 | Tyr | Pro | Ser | Val | Ile 175 | Ala |
| Val | Gly | Ala | Val 180 | Asp | Ser | Ser | Asn | Gln 185 | Arg | Ala | Ser | Phe | Ser 190 | Ser | Val |
| Gly | Pro | Glu 195 | Leu | Asp | Val | Met | Ala 200 | Pro | Gly | Val | Ser | Ile 205 | Gln | Ser | Thr |
| Leu | Pro 210 | Gly | Asn | Lys | Tyr | Gly 215 | Ala | Tyr | Asn | Gly | Thr 220 | Ser | Met | Ala | Ser |
| Pro 225 | His | Val | Ala | Gly | Ala 230 | Ala | Ala | Leu | Ile | Leu 235 | Ser | ГЛЗ | His | Pro | Asn 240 |
| Trp | Thr | Asn | Thr | Gln 245 | Val | Arg | Ser | Ser | Leu 250 | Glu | Asn | Thr | Thr | Thr 255 | Lys |
| Leu | Gly | Asp | Ser 260 | Phe | Tyr | Tyr | Gly | Lys 265 | Gly | Leu | Ile | Asn | Val 270 | Gln | Ala |
| Ala | Ala | Gln 275 | | | | | | | | | | | | | |

Figure 2

3/14

TABLE 1

| | S149 | S160 | S188 | S189 | S190 | S191 | S193 | S194 | S196 | S197 | S198 | S199 | S201 | S202 |
|-------|------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Q2K | X | X | Х | х | X | X | Х | х | Х | X | х | х | х | X |
| S3C | X | Х | X | X | X | X | Х | X | x | x | Х | Х | Х | X |
| P5S | X | X | Х | Х | Х | х | х | x | x | x | х | х | Х | х |
| S9A | X | X | X | Х | Х | X | X | x | х | X | X | х | х | Х |
| I31L | X | х | X | X | X | X | Х | x | х | X | X | Х | Х | Х |
| K43N | Х | Х | Х | Х | Х | X | Х | х | x | X | X | X | х | Х |
| M50F | X | X | X | Х | X | X | Х | X | X | X | X | Х | Х | х |
| A73L | Х | X | X | х | x | х | X | X | x | X | X | x | х | Х |
| 75-83 | Х | X | X | X | X | X | X | Х | Х | х | X | X | X | X |
| E156S | х | X | X | X | X | Х | X | Х | Х | X | Х | Х | Х | X |
| G166S | X | X | X | X | X | X | X | Х | X | Х | Х | Х | X | X |
| G169A | Х | X | X | X | X | X | Х | X | X | X | Х | X | Х | Х |
| S188P | Х | X | X | X | X | Х | X | X | X | Х | Х | Х | X | Х |
| Q206C | Х | X | X | X | Х | X | Х | Х | Х | X | X | X | X | X |
| N212G | Х | X | X | X | X | X | x | X | X | X | X | X | Х | Х |
| K217L | Х | X | X | X | Х | X | Х | Х | X | X | X | X | X | X |
| N218S | Х | Х | Х | X | X | X | X | X | X | Х | X | X | X | X |
| T254A | Х | х | X | X | X | X | Х | X | X | X | X | Х | Х | X |
| Q271E | Х | Х | X | Х | X | Х | X | X | X | X | Х | X | Х | X |
| Y104A | | X | X | Х | X | Х | Х | X | X | X | X | Х | Х | X |
| G128S | | X | Х | Х | X | X | X | X | X | X | X | X | X | X |
| L126I | | | | | | | | | | | | | | |
| S166G | | | | | | | Х | | | | | Х | X | X |
| N155L | | | X | | | | | | | | | | | |
| D32A | | | | Х | | | | | | | | | X | |
| D32S | | | | | X | | | | | | | | | |
| D32V | | | | | | | | | X | | | X | | |
| D32T | | | | | | | | | | X | | | | |
| D32G | | | | | | | | | | | Х | | | |
| N155Q | | | | | | X | | | | | | | | |
| S221A | | | | | | | | X | | | | | | х |

Figure 3

4/14

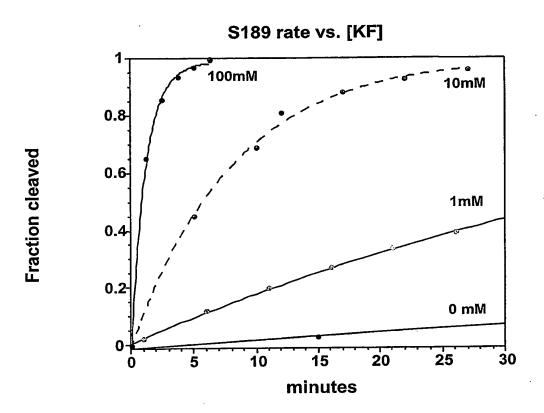


Figure 4

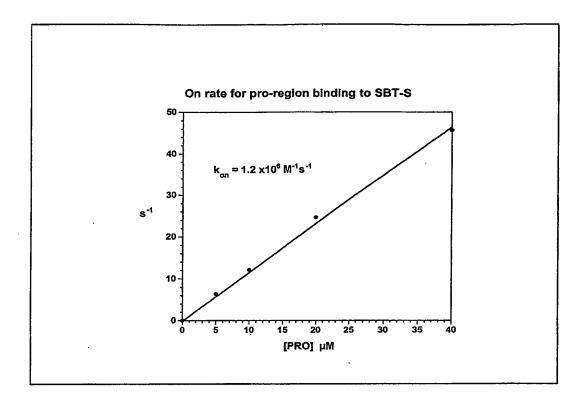


Figure 5

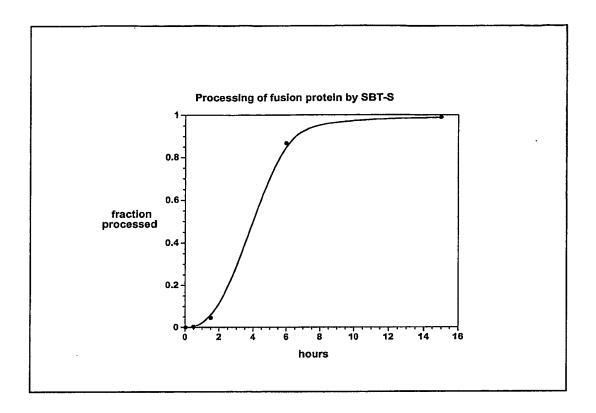


Figure 6

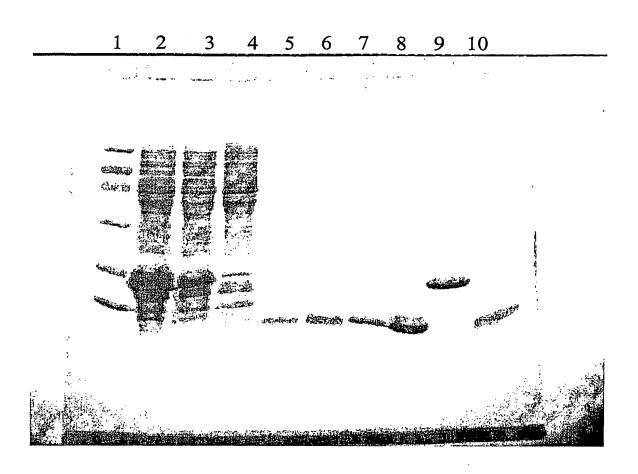


Figure 7

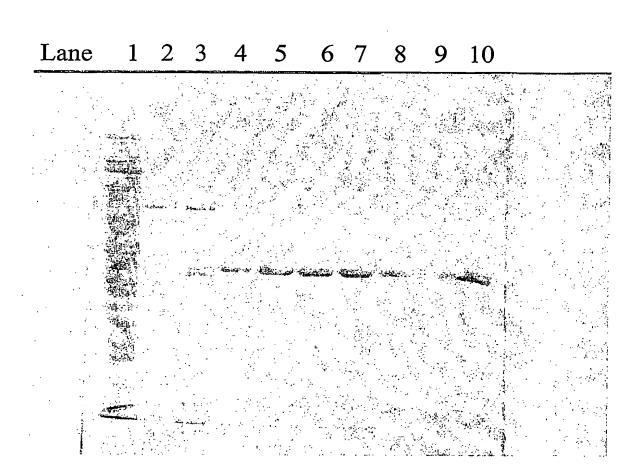
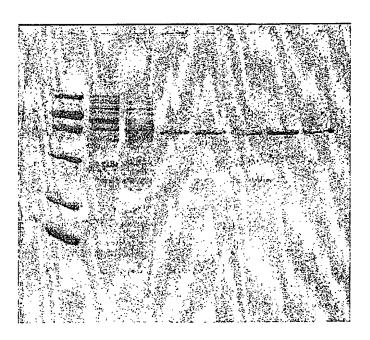


Figure 8

CDC6



DNA replication factor 379 aa

Methanothermobacter thermautotrophicus

Figure 9

10/14

Figure 10 A

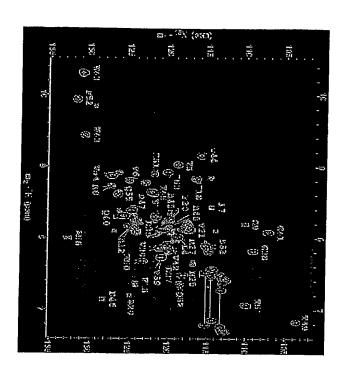
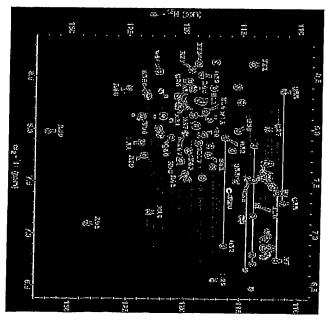
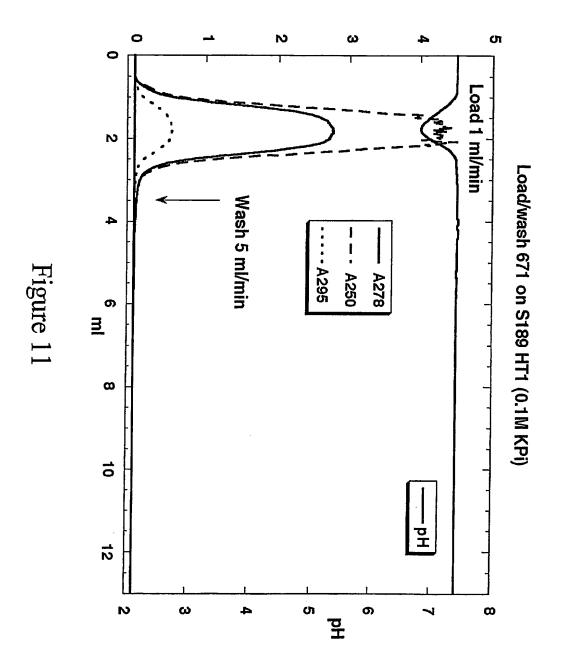


Figure 10 B

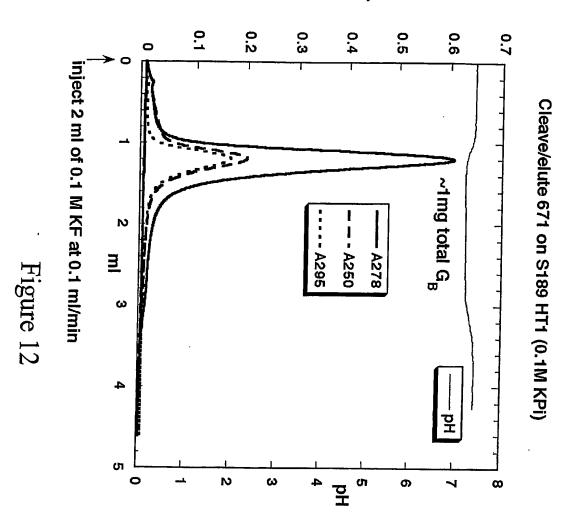


11/14 Absorbance 0.2 cm path flow cell

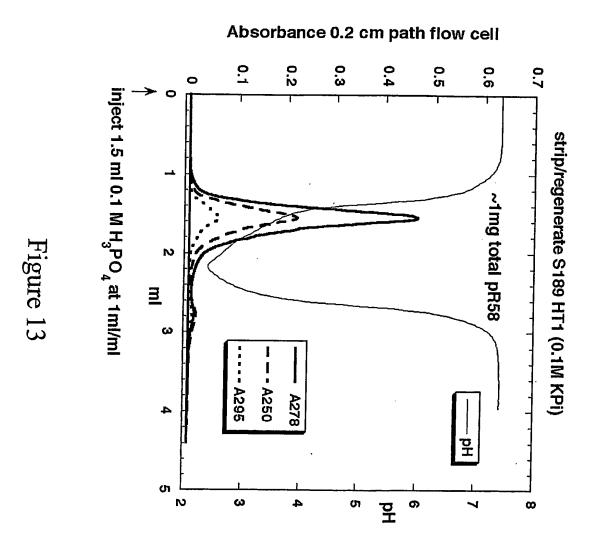


12/14

Absorbance 0.2 cm path flow cell



13/14





Lane 1 2 3 4 5 6 7

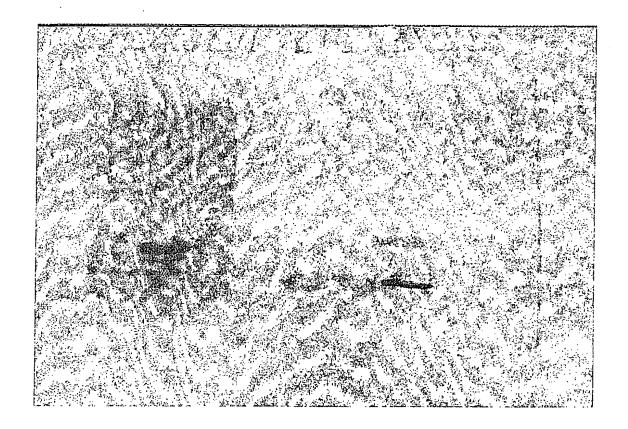


Figure 14